

EWYT490B-SSA2



- > Air to water reversible heat pump
- > Scroll compressor
- > Standard efficiency version
- > Standard sound configuration
- > R-32 refrigerant

- ➔ **Unit description:** Daikin air to water reversible heat pump with hermetic scroll compressors and R32 refrigerant. Unit colour is ivory White (Munsell code 5Y7.5/1) (±RAL7044).
- ➔ **Compressors:** Hermetic orbiting scroll designed for R32 operation and complete with motor over-temperature and over-current protection devices. Each compressor is equipped with an oil heater that keeps the oil from being diluted by the refrigerant when the chiller is not running. The compressors are connected in Tandem or Trio configuration on each refrigerant circuit. Each compressor is mounted on rubber antivibration mounts for a quiet operation. Unit is delivered with complete oil charge.
- ➔ **Water side Heat Exchanger:** The unit is equipped with a direct expansion plate to plate heat exchanger. This heat exchanger is made of stainless-steel brazed plates and covered with a 20mm closed cell insulation material. The exchanger is equipped with an electric heater for protection against freezing. Water connections are provided with Victaulic kit.
- ➔ **Air side Heat Exchanger:** The air side heat exchanger is manufactured with internally enhanced seamless copper tubes arranged in a staggered row pattern and mechanically expanded into lanced and rippled aluminum fins with full fin collars. An integral sub-cooler circuit provides sub-cooling to effectively eliminate liquid flashing and increase cooling capacity without increasing the power input.
- ➔ **Air side Heat Exchanger fans:** The fans are propeller type with high efficiency design blades to maximize performances. Fan blades are made of glass reinforced resin and each fan is protected by a guard. Parallel Coil units are equipped as standard with fan speed modulation (phase cut). Double V Coil units (standard and low sound versions) are equipped with on/off fans and inverter drive is available as an option. Double V Coil units reduced noise versions are equipped with inverter driven fans as standard.
- ➔ **Refrigerant circuit:** Each unit has one or two independent refrigerant circuits and each one includes: Compressors, Refrigerant, Water Side Heat Exchanger, Air Side Heat Exchanger, Electronic expansion valve, 4-way valve, Sight glass with moisture indicator, Filter drier, Charging valves, High pressure switch, High pressure transducers, Low pressure transducers, Oil pressure transducer and Suction temperature sensor.
- ➔ **Electrical panel:** Power and control are in the main panel that is manufactured to ensure protection against all weather conditions. It is IP54 and internally protected against possible accidental contact with live parts when the doors are open. The main panel is fitted with interlocked main switch door that interrupts power supply when opening.
- ➔ **Controller:** Latest generation MicroTech 4 controller provides an easy to use control environmental. The control logic is designed to provide maximum efficiency, to continue operation in unusual operating conditions and to provide a history of unit operation. Sophisticated software with adaptive logic selects the most energy efficient combination of compressor load, electronic expansion valve position and fans to keep stable operating conditions and maximize chiller efficiency and reliability. One of the greatest benefits is the easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications.



EWYT490B-SSA2

Cooling mode performances

Cooling capacity	398.3 kW	Chilled water IN/OUT	10.00 °C / 5.00 °C
Power input	164.1 kW	Chilled water flow	21.16 l/s
EER Cooling Efficiency	2.427 kW / kW	Water heat exchanger pressure drops	64.8 kPa
		Ambient temperature	35.0 °C
		Lw / Lp @ 1m	97 dB(A) / 77 dB(A)
SEER / ηs	4.23 / 166.2%	Fluid	Ethylene glycol 35%
		Water heat exchanger fouling factor	0.000 m²°C/W

SEER declared according to EN14825, fan coil application 12/7°C (inlet/outlet) water temperatures. Sound power level according to ISO 9614-1. SEER and IPLV/IP refer to standard unit without options

Heating mode performances

Heating capacity	475.8 kW	Heated water IN/OUT	40.00 °C / 45.00 °C
Power input	163.8 kW	Heated water flow	24.98 l/s
COP Heating Efficiency	2.904 kW / kW	Water heat exchanger pressure drops	86.1 kPa
SCOP / ηs	3.370 / 131.8%	Ambient temp dry/wet bulb	7 °C / 6 °C

SCOP declared according to EN14825, average climate, low temperature application Heating performances calculated with defrost effect

Unit information

Compressor type	Scroll	Refrigerant type	R32
Capacity control	Step	Air heat exchanger type	HFP
Compressor N°	5	Air heat exchanger fans N°	8
Circuit N°	2	Air heat exchanger fans control	On/Off
Refrigerant charge	60.3 kg	Altitude	000 MSL
		Water heat exchanger type	Plated Heat Exchanger

Actual refrigerant charge depends on the final unit construction, refer to unit nameplate.

Electrical information

Power supply	400 V / 50.0 Hz / 3 Ph	Max. inrush current	712 A
Running current	283.83 A	Compressor starting method	Direct on line
Max. Running current	379 A		
Max. current wires sizing	416.9 A		

Voltage tolerance ± 10%. Phase Voltage unbalance ± 3%. Electrical data referred to standard unit without options, refer to unit name plate data.



EWYT490B-SSA2

Acoustic information

Sound pressure level at 1 m from the unit (rif. 2 x 10⁻⁵ Pa)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	db(A)
82.0	77.0	76.0	74.0	72.0	70.0	63.0	59.0	76.6

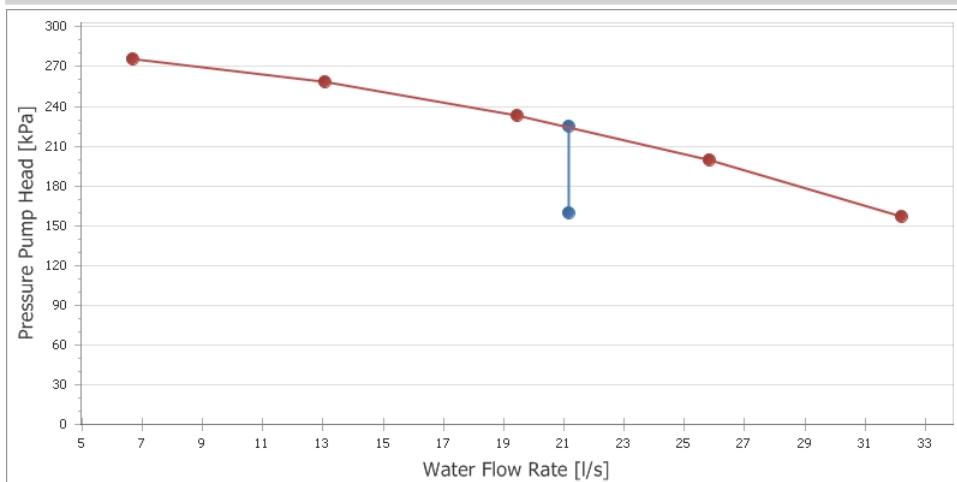
Values referred to Evap. IN/OUT 12/7°C and 35°C Amb., full load operation, standard unit configuration without options. Sound pressure level calculated from sound power level. Sound pressure in octave band is for information only and not considered binding.

Physical information

Evap. connections size	88.9 mm	Length	4316 mm
		Width	2224 mm
Weight shipping/operating	3483 kg / 3510 kg	Height	2516 mm

Information referred to standard unit configuration without options, refer to certified unit drawing.

Pump curve



Water flow rate [l/s] *	21.16
Evaporator pressure drop [kPa] *	64.8
Pump water head [kPa] *	224.9
Pump motor power input [kW]	7.5
Pump motor current [A]	14.1
Power supply [V/Ph/Hz]	400/3/50
PN	16
Motor protection	IP55
Insulation class	F

* @working conditions



EWYT490B-SSA2**Certification notes**

Outside the scope of AHRI Air-Cooled Water-Chilling Packages Certification Program or not optionally certified, but is rated in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

General notes

For more information about the above selected product, please go to <http://www.daikineurope.com/industrial/>. Unit performances are reproducible in laboratory test environment only in accordance to recognized industry standards. This technical data sheet is generated by Daikin Applied Tool software designed and distributed by Daikin Applied Europe S.p.A. The present software does not constitute an offer binding upon Daikin Applied Europe S.p.A who compiled the content of this software to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Product images are indicative only and are intended for illustrative purposes only; pictures may be differed from the ordered product and are subject to change without prior notice. Daikin Applied Europe S.p.A. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this document. All content is copyrighted by Daikin Applied Europe S.p.A.



The refrigerant charge for this unit is covered by a third party verified reclaimed refrigerant allocation. Reclaimed refrigerant compliant with AHRI700 standard. With this initiative, Daikin commits in reducing environmental impact of refrigerants, by avoiding emissions related to end-of-life refrigerants' destruction. Find out more info at: https://www.daikin.eu/en_us/daikin-blog/building-a-circular-economy.html

